

Health & Safety Manual

Supplement 2.31

Startup and Restart of Nuclear Facilities

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Approved by the ES&H Working Group

Robert W. Kuckuck
Deputy Director of Operations

date _____

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Startup and Restart of Nuclear Facilities*

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Terms and Definitions

The following terms and definitions are from DOE Order 5480.31.

Graded Approach

A process by which the level of analysis, documentation, and actions necessary to comply with a requirement in DOE Order 5480.31 are commensurate with

- The relative importance to safety, safeguards, and security.
- The magnitude of any hazard involved.
- The life cycle stage of a facility.
- The programmatic mission of a facility.
- The particular characteristics of a facility.
- Any other relevant factor.

Operational Readiness Review (ORR)

A disciplined, systematic, documented, performance-based examination of facilities, equipment, personnel, procedures, and management control systems to ensure that a facility will be operated safely within its approved safety envelope as defined by the facility safety basis. The Operational Readiness Review scope is defined based on the specifics of the facility and/or the reason for the shutdown as related to a minimum set of core requirements. A graded approach will be used in defining the depth of the Operational Readiness Review based on these core requirements.

Plan-of-Action

A high-level document describing the breadth and prerequisites of the Operational Readiness Review, the composition of the team performing the review, and the designated startup or restart authority.

Readiness Assessment (RA)

A review that is conducted to determine a facility's readiness to startup or restart when an Operational Readiness Review is not required.

Shutdown

For the purpose of complying with this supplement, a shutdown is the condition in which a nonreactor nuclear facility ceases operations for which the facility was being operated and is placed in a safe condition (i.e., program work ceases).

Startup and Restart of Nuclear Facilities

1.0 Introduction

DOE Order 5480.31, "Start-up and Restart of Nuclear Facilities," provides detailed requirements for conducting and documenting prestart readiness reviews of existing nuclear facilities that have been shutdown and new nuclear facilities being started up. Refer to this DOE Order for compliance requirements because LLNL's implementation guidance on this subject has not yet been written.

The process for promulgating new Department of Energy (DOE) rules, orders, and standards for nuclear facilities, as well as the terms and conditions in the contract between the DOE and the University of California are in a state of change. This supplement will be updated to reflect any changes as soon as the requirement source documents become available.

2.0 Applicability

The requirements in DOE Order 5480.31 apply to the startup of new nuclear facilities or existing nuclear facilities that have been shutdown at the direction of DOE.

3.0 Requirements/Regulatory Summary

DOE Order 5480.31 contains requirements for prestart reviews. DOE line management determines the appropriate authority for approving the startup of new nuclear facilities or the restart of existing nuclear facilities.

DOE-STD-3006-93, "Planning and Conduct of Operational Readiness Reviews," provides guidance on developing and conducting Operational Readiness Reviews (ORRs) and Readiness Assessments.

4.0 Process for Compliance

When DOE Order 5480.31 is applicable, LLNL is required to

- Prepare implementing procedures for startup and restart activities.

- Determine if an Operational Readiness Review (ORR) or a Readiness Assessment is necessary.
- Prepare plans-of-action for all ORRs and submit them to the DOE Oakland Operations Office (OAK) for review prior to conducting Operational Readiness Reviews.
- Notify DOE-OAK of planned ORRs and Readiness Assessments.
- Conduct and document the appropriate prestart review in coordination with the DOE cognizant authority.
- Notify DOE-OAK of the readiness of the facility to start up or restart after completing the ORR or Readiness Assessment.

DOE is the restart authority for nuclear facilities that have been shut down .

5.0 Responsibilities

Facility Associate Directors are responsible for implementing the requirements in DOE Order 5480.31.

6.0 LLNL Contacts

For additional information, contact the following as necessary:

- Directorate Assurance Manager.
- ES&H Teams.
- Price Anderson Act Amendments (PAAA) Project Office (ext. 3-7540).

7.0 Supporting References and Standards

DOE Order 5480.31, "Start-up and Restart of Nuclear Facilities."

DOE-STD-3006-93, "Planning and Conduct of Operational Readiness Reviews."